Amendments to the Specification

Please add the following on page 1, before line 1:

TECHNICAL FIELD OF THE INVENTION

Please amend the following paragraph beginning on page 1, line 1

This invention relates to electroacoustic transducers which act as Loudspeakers and, in particular, to the thin diaphragm type of Audio transducers, which **[are converting]** convert electrical (audio) energy**[,]** into movement of a sound emitting diaphragm.

Please add the following on page 1, line 4:

BACKGROUND OF THE INVENTION

Please amend the following paragraph beginning on page 1, line 5:

Such transducers, which are called Planar Loudspeakers or some times **[as]** Ribbon Loudspeakers, in the past years **[were]** have not **[enjoying]** enjoyed the same popularity as the cone-type speakers – [inspite] in spite of the superior performance of the **[said]** diaphragmatic types -- due primarily their high cost, and the different performance characteristics.

Please amend the following paragraph beginning on page 1, line 11:

As **[it]** is known to those skilled**[,]** in the art of sound reproduction, the "pistonic" operation of cones or domes is not at all secured throughout their operating range, and as a result there may not be a uniform sound emitting activity **[can exist]** from the surface of the cone or dome. Sound waves emitted from the peripheral portion of the cone or dome may be out of phase to the emitted sound, from their central part areas, at any given instant. This is an inherent distorting characteristic of cone-dome Loudspeakers, created by the mode of activation and the shape of the activated sound emitting surfaces. An additional distortion producing factor**[,]** is the moving mass of cone or dome which has to be moved in accordance with the waveform of the audio current.

Please amend the following paragraph beginning on page 1, line 19:

The demands of the audio signal[,] can be so great in terms of moving speed and acceleration[,] that **[(the inertia mass)]** the inertial masses or weights **[weight (mass)]** of the vibrating parts is a **[great]** significantly limiting factor. As a result the reproduced waveform is greatly affected especially in high frequencies where the relative inertias cannot be met by the electromagnetic motor moving the heavy cones or domes.

Please amend the following paragraph beginning on page 1, line 24:

The above severe limitations[,] of the motor actuated Loudspeakers, such as kinetic sluggishness[;], shape and mass, are certainly**[, overcomed,]** overcome by the thin diaphragm type of loudspeaker, which **[employ]** employs as its sound emitting surface a diaphragm of greatly reduced mass and the moving force is applied on almost all the area of the vibrating diaphragm, thus realizing a true pistonic vibration action. The low mass of the diaphragm obeys the commands of the audio waveform with exceptional ease and the acoustic results are extreme fidelity[,] and transparency.

Please amend the following paragraph beginning on page 1, line 19:

Numerous **[type]** types of such planar speakers can be found**[, being used]** in use in Hi Fi systems[,] giving very satisfactory acoustic results. Most of the planar transducers existing in commercial production today make use of a Polyester or Polyimid diaphragm which has on its surface laminated a very thin layer of parallel aluminum current carrying conductors. The **[said]** diaphragm is evenly stretched over rows of magnets, the magnetic lines of which[,] intersect the diaphragm with current currying conductors at 90°. The interaction of the magnetic lines and the magnetic field created by the current flowing through the conductors[,] results in a force, moving the diaphragm either forward or backward **[the diaphragm]** in accordance with the direction – at any instant – of the flowing audio current.

Please amend the following paragraph beginning on page 2, line 12:

Such planar loudspeakers are characterized by distinct advantages in performance over the cone-dome loudspeakers. Planar loudspeakers exhibit[,] wider bandwidth, Linear phase response, constant impedance, greatly improved transient response and lower distortion.

Please amend the following paragraph beginning on page 2, line 16:

All those operating advantages are the reasons of the acoustic superiority of **[Planars]** planar loudspeakers. **[Especially, with]** Because of today's digital sources of audio reproduction such as CD, DVD-Audio, SACD (Super Audio CD), DAT etc. which place higher demands on the contemporary loudspeaker systems, the **[said]** above described advantages are invaluable. However all those acoustic benefits offered by planar magnetics are enjoyed by audiophiles, after paying the high cost, for the **[said]** loudspeakers.

Please amend the following paragraph beginning on page 2, line 21:

The high cost of the planar loudspeakers is **[somehow anticipated,]** acceptable to audiophiles after considering their distinct acoustic merits. The disappointment of the user may arise, however, if **[comes, when]** the delicate vibrating diaphragm happens to fail, either by mechanical failure or by thermal failure of the coil. In such situation, **[all]** the **[rest]** remainder of the expensive structure of the planar loudspeaker is wasted as **[laying]** it is essentially rendered inoperative.

Please amend the following paragraph beginning on page 2, line 16:

Invariably such planar Loudspeaker failures are not remediable by the user. Under **[the]** those circumstances the magnetic structure and in fact the entire loudspeaker, for which the audiophile has **[been]** paid dearly, becomes a total loss or waste. Even in the rare case of loudspeaker makers allowing return to the factory for repair, the user must again pay dearly for material, labor and transportation.

Please insert the following at page 2, between lines 30 and 31:

SUMMARY OF THE INVENTION

Please amend the following paragraph beginning on page 2, line 31:

[Primary] A primary object of the present invention is to provide a planar sound reproducer with excellent performance characteristics, the values of which are secured, and maintained at all times by offering the following features:

(A) The exchangeable diaphragm may carry a multiplicity of binary interlaced coils. The advantages of the binary interlaced coils, of this invention, and their applications is described below **[will be exposed extensively]** in the text **[to follow]**.

(B) An easy and simple way of replacing the diaphragm, by the user, in the field **[filed]**, without the need to manipulate any wires and soldering **[-disordering]** tools in case of failure, or, in case of installing diaphragm with different characteristics.

(C) The exchangeable diaphragms in a **[variante]** variant of resistance—impedance characteristics.

(D) The whole surface of the binary interlaced coils being driven, in the true sense of the word driven. In order that the present invention may be more fully understood, the **[made]** above statements A, B, C, D will be elaborated and with the help of accompanying drawings fully elucidated.

Please amend the following paragraph beginning on page 3, line 12:

In the present invention the replacement of the diaphragm is accomplished by the user in a very simple operation, without the need of manipulating wires or using a soldering **[-]** or de-soldering means, as **[this]** is necessary in prior art equipment.

Please add the following before the paragraph beginning at page 3, line 29:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an illustration of the main components of the diaphragmatic electroacoustic transducer

FIG. 2 is a cross-sectional view that shows the upper plate pole, the diaphragm assembly, the central pole, the side poles, the Neodymium magnets with the two air gaps the upper plate pole and the central pole 3.

FIG. 2A is a perspective view of the complete loudspeaker assembled and the two covers being in place.

FIG. 2B is a cross-sectional view showing the headless screws against the internal surface of the front part of the aluminum enclosure.

FIG. 3 is an illustration showing the two pairs of contact islands and that correspond t the two interlaced coils.

FIG. 4 is a perspective illustration showing the open loudspeaker with the diaphragm assembly inserted in its operating position.

FIG. 5 illustrates the application of the Ampere's Law in the length (L) of the present invention's diaphragm conductors.

Please add the following before the paragraph beginning at page 3, line 29:

DETAILED DESCRIPTION OF THE INVENTION

Please replace the abstract with the following amended abstract:

The present invention is directed to a **[A]** diaphragmatic (planar) [electrocoustic] electroacoustic transducer that forms a complete sound radiating transducer**[, with]** and provides high efficiency and linearity. The diaphragm is **[An]** easily exchangeable and rectangular in shape [diaphragm], and may be made of very thin polyamide film **[is made]** with a plurality of aluminum conductors formed on one side of **[said]** the diaphragm. The [diaphragm with the] plurality of conductors form two identical and symmetrical coils such **[which are the one, inside the other, in an order,]** that conductors of each coil are interlaced. The two sections of the coils are disposed in dense air-gaps of the magnet system, which comprises a plurality of high (BHmax) Neodymium magnets. The binary interlaced coils can be utilized in a number of modes, for the purpose of accomplishing a variety of operating modes **[, such as: 1. A series connection provides a higher sensitivity compared to single coil (2). A parallel connection converts the transducer to a higher power standing devise (3). A single coil driving mode, leaves the other coil to be used as magnetic damping devise for the whole diaphragm (4). Moreover a single coil driving, allows the utilization of the other coil to be as source of**

correcting feedback circuitry (5). The symmetricity and the similarity of parameters of the two coils can be exploited in push-pull output stages for linearizing purposes (6). In addition the two coils cast be used in direct digital loudspeaker circuitry. The above described operating modes, are merely illustrative of the varied possibilities which may constitute applications of the invention's binary interlaced coil configuration. The binary interlaced coils of the present invention can be executed with a multiplictly of such coils, laid on the same diaphragm, for accomplishing long line source loudspeaker. Such other application may be devised by those skilled in the art, exploiting the possibilities offered by the two identical and symmetrical coils].